

REMARKS

Restriction Requirement

Applicants provisionally elect claims 1-14. However, the requirement for election is traversed.

Examiner claims that the Application contains two distinct inventions: Invention I (claims 1-14) and Invention II (Claims 15-17), and therefore restriction is required. Applicants respectfully submit that Examiner has failed to make a *prima facie* showing that the inventions are unrelated. In fact, inventions I and II are very related in that they are both mutants of the same cellulose synthase gene, perform similar functions and have similar effects (providing herbicide resistance). Their similarity suggests that both inventions would acquire the same or similar classification and that a search required for one of the groups will also be required for the others. For these reasons, it is respectfully suggested that the Examiner will not be seriously burdened in searching and considering all of the claims in the Application. (MPEP § 803).

Clarification Response

Examiner has also required clarification regarding which sequences are encompassed within group I and II, however, Applicants respectfully submit that the groups are partially mischaracterized. Although some of claims and sequences of claims 1-14 are directed to mutant genes encoding an isoxaben resistant cellulose synthase comprising an amino acid substitution corresponding to residue 998 of SEQ ID No. 5 mainly claims 2,3,8,9 and 12-14 (i.e. sequences 1 and 4), other sequences and claims 4,5 and 10-11, (i.e. sequences 2 and 6) have sequences corresponding to a synthase with an amino acid substitution corresponding to residue 942 of SEQ ID No. 5.

It should be noted that SEQ ID No. 3 (claims 6 and 7) corresponds to a synthase having an amino substitution at **both** 942 and 998 of SEQ ID No. 5.

As noted by Examiner claims 15-17 are directed to a gene encoding a synthase comprising two amino acid substitutions corresponding to residues 942 **and** 998 of SEQ ID No.

5. As noted above Sequence ID No. 3 is one example of such a mutant gene.

Claim 1 claims any gene encoding an isoxaben resistant cellulose synthase which includes but is not limited to genes encoding for synthases having amino acid substitutions at residues 942 and/or 998 of SEQ ID No. 5.

Election of Sequence

In response to the Examiners request for election of one nucleic acid sequence and the corresponding encoded amino acid sequence the applicants provisionally elect SEQ ID NO.1 and its corresponding amino acid sequence, with traverse.

Applicants assert that the Examiner will not be seriously burdened in searching and considering all of the claims and claimed sequences in the Application.(MPEP § 803). As Examiner has pointed out, the USPTO has stated that it will examine up to ten independent and distinct nucleotide sequences in a single application without restriction. See, 52 BNA 716-717, 728-30, Oct 31, 1996; Official Gazette, Nov. 19, 1996. MPEP §803.04 states "It has been determined that ten sequences constitute a reasonable number" (of sequences) for examination purposes. "Accordingly, in most cases, up to ten sequences will be examined in a single application without restriction." Section 803.04 goes on to state that only exceptional circumstances (such as claiming a protein amino acid sequences with three dimensional folds) may necessitate that the reasonable number of sequences to be selected be less than ten.

Examiner argues that database and resource allocations at the PTO have changed and the examination of 10 sequences would present a burden on PTO resources. Applicants find

this argument unconvincing for at least two reasons: (1) the argument does not constitute an exceptional circumstance as required by §803.04 and (2) since 1996 new technology, software, databases, and other resources (i.e. the internet, NCBI, Blast, DGENE, EMBL etc.) have made searching nucleotide sequences infinitely more simple and accessible. If anything searching a nucleotide sequence in 2006 is much easier, quicker, and less burdensome than it was ten years ago. Therefore, Applicants respectfully request consideration of all the claims present in the Application as it is not believed to put an undue burden on the PTO.

Respectfully submitted,



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